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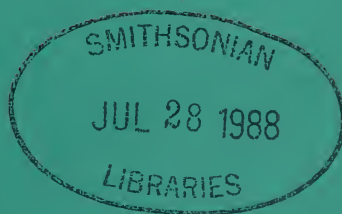
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INSTRUCTIONS TO AUTHORS

1. MATERIAL should be original and not published elsewhere, in whole or in part.
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 - Title; informative but concise, without abbreviations and not including the names of new genera or species
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 - Number of illustrations (figures, enumerated maps and tables, in this order)
 - (b) *Abstract* of not more than 200 words, intelligible to the reader without reference to the text
 - (c) *Table of contents* giving hierarchy of headings and subheadings
 - (d) *Introduction*
 - (e) *Subject-matter* of the paper, divided into sections to correspond with those given in table of contents
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3. MANUSCRIPT, to be submitted in triplicate, should be typewritten and neat, double spaced with 3 cm margins all round. First lines of paragraphs should be indented. Tables and a list of captions for illustrations should be typed separately, their positions indicated in the text. All pages should be numbered consecutively.

Major headings of the paper are centred capitals; first subheadings are shouldered small capitals; second subheadings are shouldered italics; third subheadings are indented, shouldered italics. Further subdivisions should be avoided, as also enumeration (never roman numerals) of headings and abbreviations.

Footnotes should be avoided unless they are short and essential.

Only generic and specific names should be underlined to indicate italics; all other marking up should be left to editor and publisher.

4. ILLUSTRATIONS should be reducible to a size not exceeding 12 × 18 cm (19 cm including caption); the reduction or enlargement required should be indicated (and preferably uniform); originals larger than 35 × 47 cm should not be submitted; photographs should be rectangular in shape and final size. A metric scale should appear with all illustrations, otherwise magnification or reduction should be given in the caption; if the latter, then the final reduction or enlargement should be taken into consideration.

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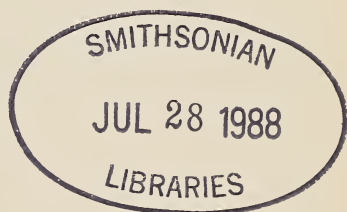
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FISCHER, P. H. 1948. Données sur la résistance et de la vitalité des mollusques. *Journal de conchyliologie* 88 (3): 100-140.
FISCHER, P. H., DUVAL, M. & RAFFY, A. 1933. Études sur les échanges respiratoires des littorines. *Archives de zoologie expérimentale et générale* 74 (33): 627-634.
KOHN, A. J. 1960a. Ecological notes on *Conus* (Mollusca: Gastropoda) in the Trincomalee region of Ceylon. *Annals and Magazine of Natural History* (13) 2 (17): 309-320.
KOHN, A. J. 1960b. Spawning behaviour, egg masses and larval development in *Conus* from the Indian Ocean. *Bulletin of the Bingham Oceanographic Collection, Yale University* 17 (4): 1-51.
THEILE, J. 1910. Mollusca. B. Polyplacophora. Gastropoda marina, Bivalvia. In: SCHULTZE, L. *Zoologische und anthropologische Ergebnisse einer Forschungsreise im westlichen und zentralen Süd-Afrika ausgeführt in den Jahren 1903-1905* 4 (15). *Denkschriften der medizinisch-naturwissenschaftlichen Gesellschaft zu Jena* 16: 269-270.

(continued inside back cover)

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A NEW SPECIES OF *MYSIDOPSIS* (MYSIDACEA)
FROM COASTAL WATERS OF SOUTHERN
AFRICA AND A KEY TO THE KNOWN
SPECIES FROM THE SUBCONTINENT

By

T. H. WOOLDRIDGE

Cape Town

Kaapstad

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A NEW SPECIES OF *MYSIDOPSIS* (MYSIDACEA) FROM COASTAL WATERS OF SOUTHERN AFRICA AND A KEY TO THE KNOWN SPECIES FROM THE SUBCONTINENT

By

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University of Port Elizabeth*

(With 5 figures)

[MS accepted 1 September 1987]

ABSTRACT

A new species of *Mysidopsis* was collected from warm temperate coastal waters on the east coast of southern Africa. Morphological features distinctive to *M. buffaloensis* sp. nov. include the narrowly triangular and apically acute rostrum and the armament along the inner margin of the uropod, these spines on the endopod extending only to the midlength of the segment. The lateral margins of the telson are also partly unarmed and the segment is posteriorly narrowed and tapering, terminating in two long spines. A key to the known species of *Mysidopsis* in southern Africa is given.

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Key to the southern African species of <i>Mysidopsis</i>	100
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INTRODUCTION

Benthopelagic mysid shrimps are an important subtidal component of sandy beaches in southern Africa (Wooldridge 1983). Beach mysids are usually represented by the genus *Gastrosaccus*, with other genera sometimes present. Such multigeneric assemblages usually occur when beaches are interrupted by other substrata or are influenced by estuaries.

Dredging in the shallow surf (1.5 m depth) adjacent to a concrete harbour pier bordering Orient Beach, East London, revealed the presence of an undescribed species of *Mysidopsis*. Underwater observations showed them to be present in large numbers on the surface of the sand and up to 25 m from the pier. Associated with these mysids were relatively low numbers of *Gastrosaccus psammodytes*, a species common along the beaches on the west and south coasts of southern Africa (Brown & Talbot 1972; Wooldridge 1983). Further distant from the pier *G. psammodytes* was the principal species, with *G. bispinosa* (unpublished pers. obs.) occasionally recorded.

DESCRIPTION

Mysidopsis buffaloensis sp. nov.

Figs 1–5

Holotype

SAM–A39552, South African Museum, Cape Town. Adult female from Orient Beach, East London (33°01'S). Collected on 9 March 1985 by T. Wooldridge.

Paratypes

SAM–A39553, South African Museum, Cape Town. Numerous adult males and adult females. Collection data as for holotype.

Etymology

The name refers to the robust nature of the body of this mysid and the proximity of the Orient Beach to the Buffalo River harbour, East London.

Description

General form robust. Total length of adult females 10,3–14,0 mm (mean of 25 specimens: 12,1 mm); adult males 9,0–11,5 mm (mean of 20 specimens: 10,5 mm).

Rostrum acutely pointed, extending to base of third segment of antennular peduncle, or further in large specimens (Fig. 1A). Anterolateral carapace margins rounded; posterior border emarginate leaving last two thoracic segments exposed in dorsal view. Antennular peduncle (Figs 1A, B) extending barely beyond eyes, first segment equal in length to second and third combined. Male lobe large and hirsute, typical for the genus.

Antennal sympod (Fig. 1C) with a strong spine on outer distal margin. Margins of scale setose, about four times as long as greatest width. Outer margin of scale straight, inner margin convex. A small suture present in distal one-twentieth.

Mandible (Fig. 2A) with incisor process and lacinia mobilis well developed. Molar process reduced. Palp three-segmented, second segment large and expanded, producing a distinct 'heel' along outer margin of segment. Maximum width about half the segment length. Terminal segment two and one half times as long as wide, armed at apex with a strong barbed spine. A row of about seven smaller barbed spines on inner margin on distal half of segment. Setation of palp as shown.

Maxilla (Fig. 2B) with long, slender exopod armed along outer margin with about 13 graduated setae. Second endopod segment truncate, two and one-half times as long as wide. Armament of endopod and endites as illustrated.

Maxillule (Fig. 2C) with three setae on inner lobe. Outer lobe with about nine barbed spines at distal end. First thoracic limb (Fig. 3A) typical for the genus, endopod robust with second and third joints fused. Dactylus small, slightly

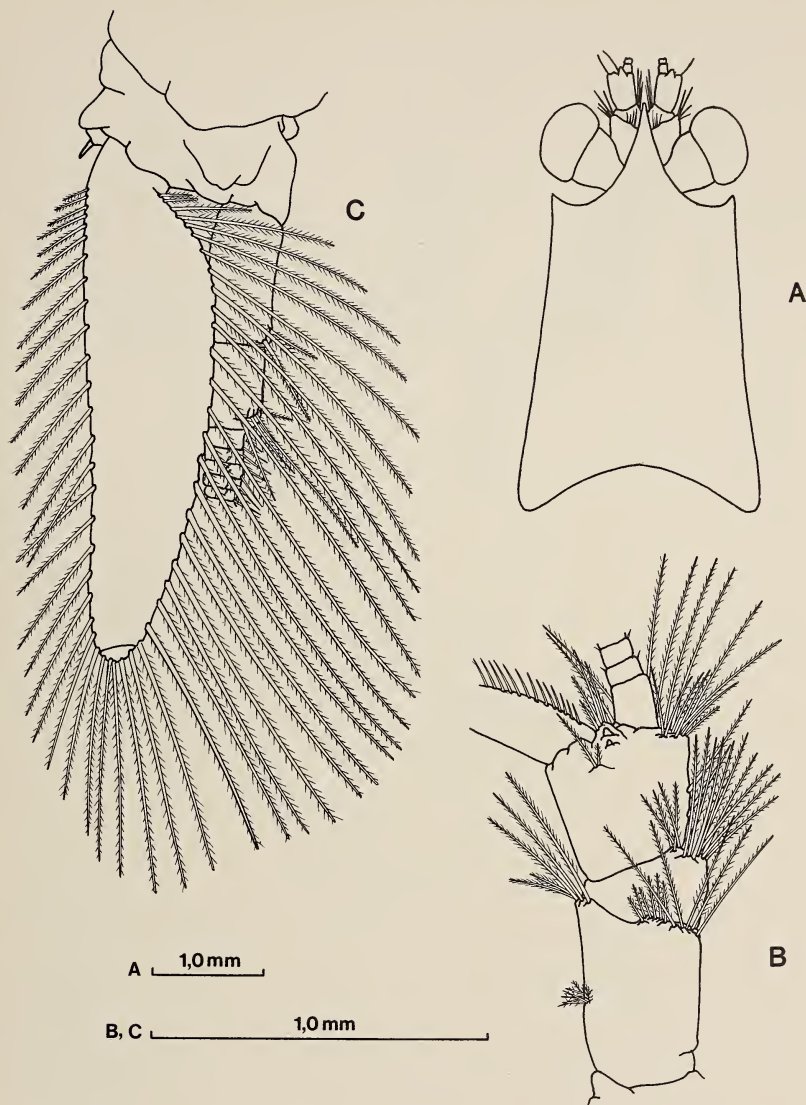


Fig. 1. *Mysidopsis buffaloensis* sp. nov. A. Carapace in dorsal view. B. Antennule. C. Antenna.

wider than long, and armed with long claw three times length of segment. Exopod with first joint expanded, outer distal angle approximately 90 degrees. Setation of segments as illustrated (Fig. 3A).

Second thoracic limb (Fig. 3B) with endopod more slender than in first thoracic limb. Merus three times as long as wide, carpo-propodus shorter and more robust than merus. Dactylus slightly longer than wide, with claw equal in length to segment.

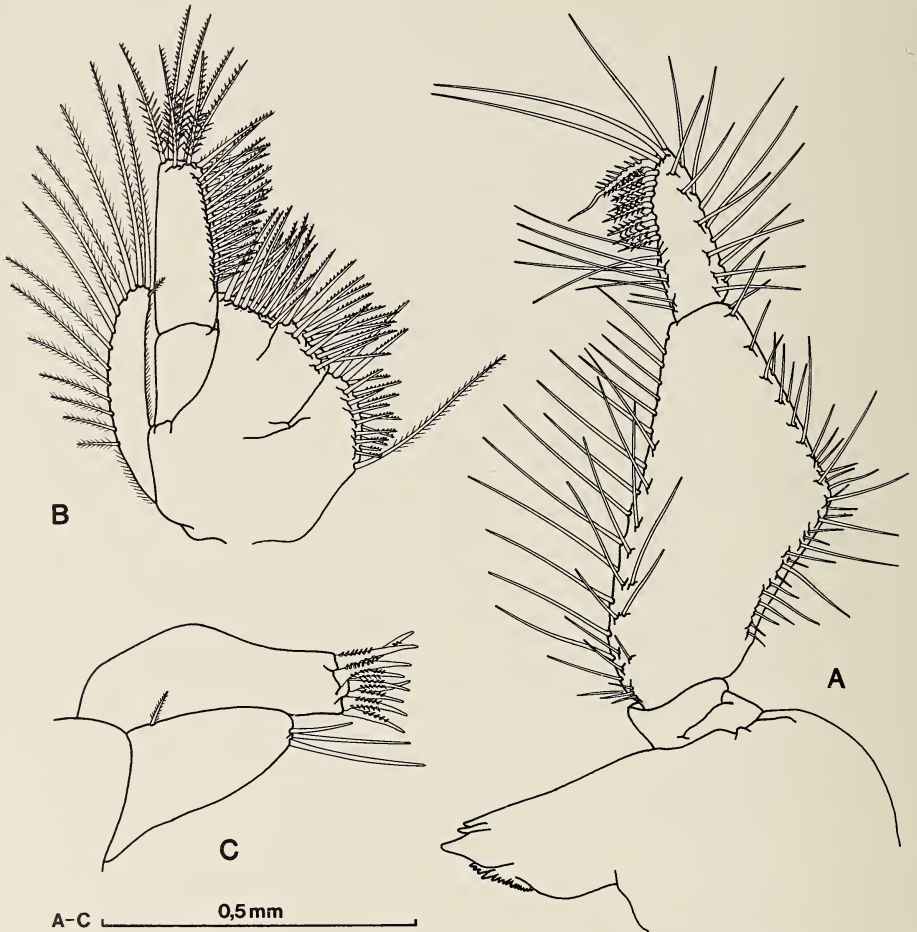


Fig. 2. *Mysidopsis buffaloensis* sp. nov. A. Mandible. B. Maxilla. C. Maxillule.

Remaining thoracic appendages slender, subequal. Carpo-propodus of three subsegments, third shorter in length than first and second combined. Dactylus small, nail long and slender (Fig. 4A).

Pleopod 1 and remaining pleopods in female (Fig. 3C) simple setose plates, which become progressively longer posteriorly.

Pleopod 1 in male (Fig. 3D) with sympod sub-rectangular. Endopod one-third length of exopod, bearing a distinct lobe at base. Lobe with five small terminal spines. Second male pleopod with rectangular sympod (Fig. 4B). Rami seven-segmented, endopod subequal in length to exopod. Basal lobe on endopod expanded in distal half and bearing five small terminal setae. Fourth male pleopod (Fig. 4C) similar in general form to pleopod 2, terminal exopod segment bearing a long, curved modified seta (Figs 4C, 5A) barbed along distal half.

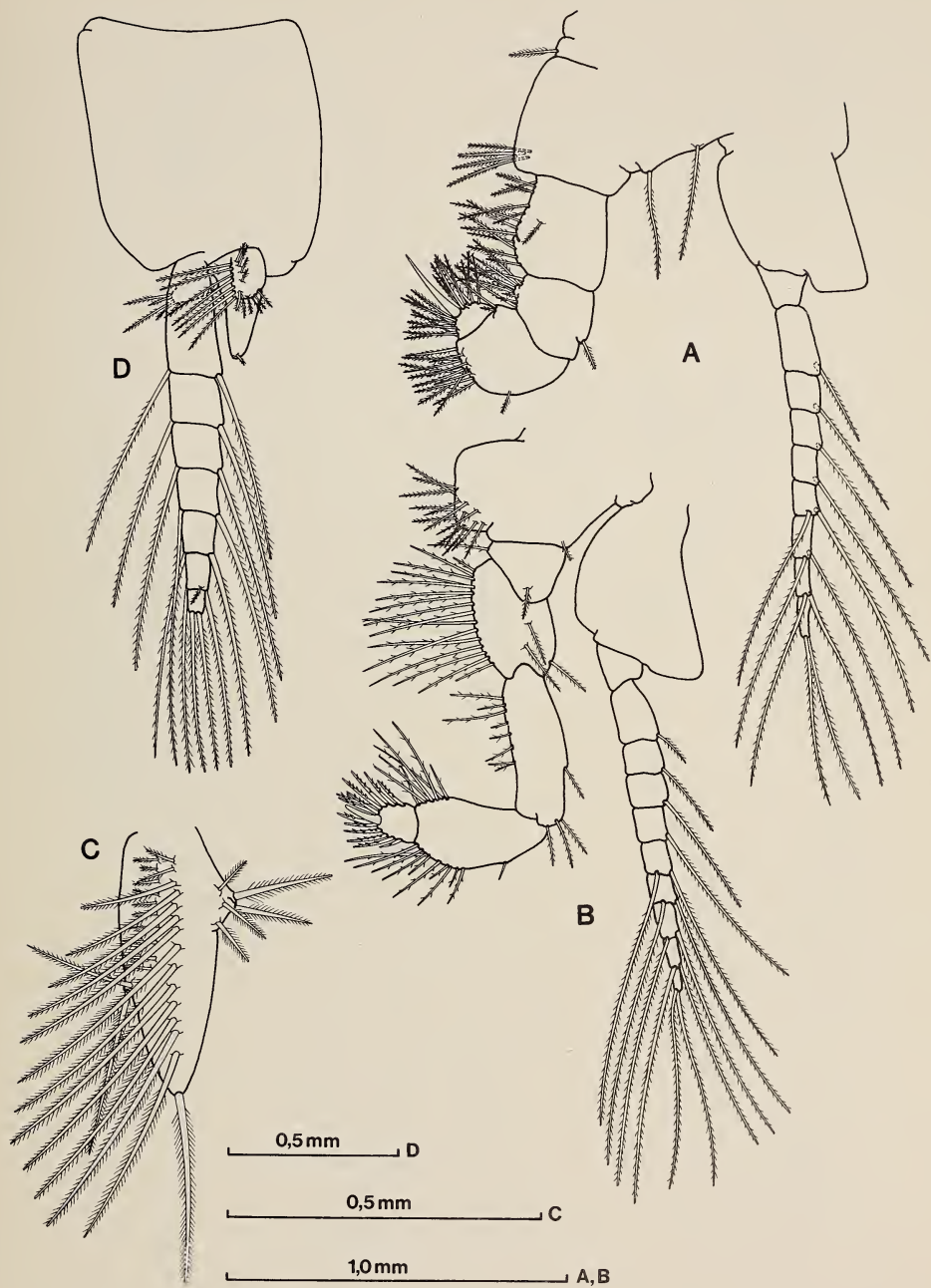


Fig. 3. *Mysidopsis buffaloensis* sp. nov. A. First thoracic appendage. B. Second thoracic appendage. C. First pleopod of female. D. First pleopod of male.

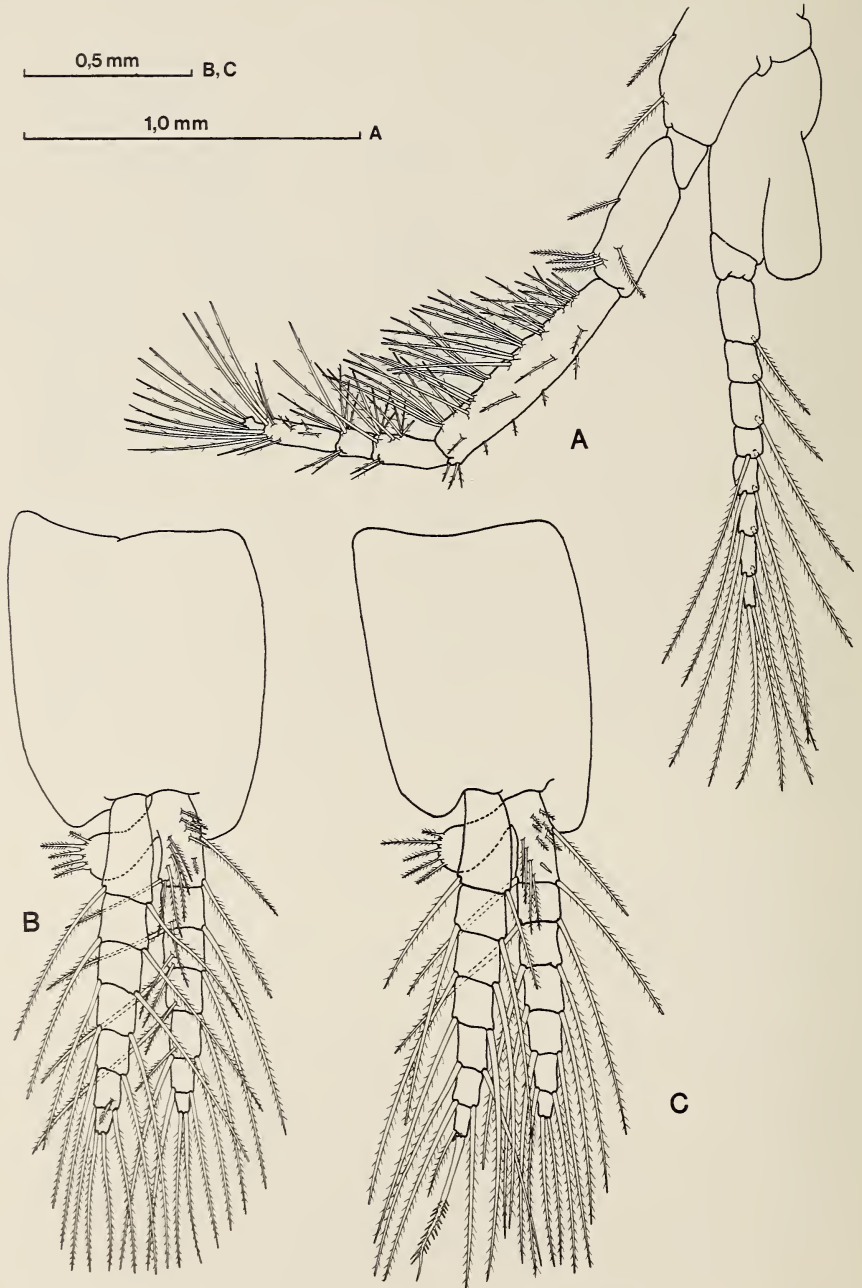


Fig. 4. *Mysidopsis buffaloensis* sp. nov. A. Eighth thoracic appendage. B. Second pleopod of male. C. Fourth pleopod of male.

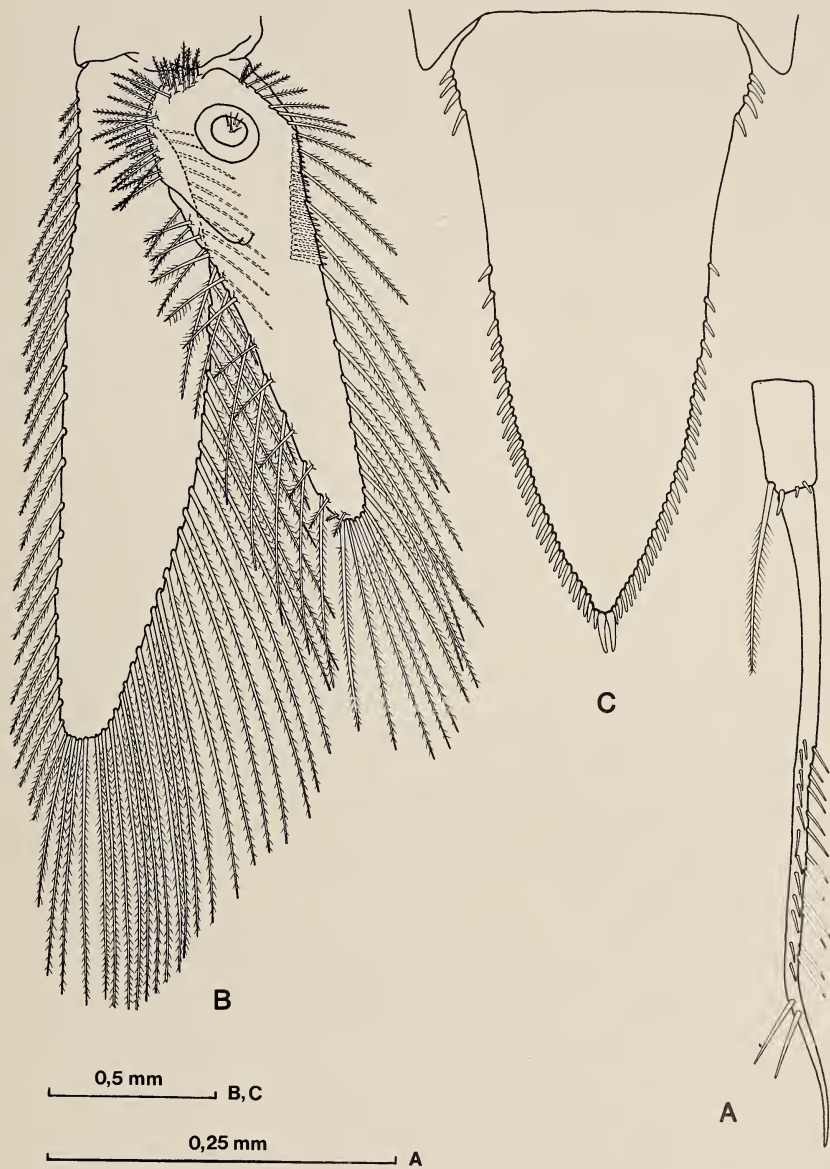


Fig. 5. *Mysidopsis buffaloensis* sp. nov. A. Terminal exopod segment of fourth pleopod of male. B. Uropod. C. Telson.